

REMARKS

In accordance with the foregoing, claims 1, 4, 5, 8, 11, 15, 18, and 22 have been amended, claims 23-30 have been withdrawn, and claims 1-30 are pending and under consideration. Paragraph [0091] of the specification has been amended. No new matter is presented in this Amendment.

REJECTIONS UNDER 35 U.S.C. §101:

Claim 22 is rejected under 35 U.S.C §101 because the Examiner alleges that the claimed invention is directed to non-statutory subject matter. Claim 22 has been amended to additionally recite the operation of: “using the stored temporary defect information with a size equal to a multiple ($N = 1, 2, \dots$) of a predetermined size (K), the stored size information of the temporary defect information with the size equal to $K \times N$, the stored information indicating a location of the temporary defect information with the size equal to $K \times N$, and the stored information indicating a location of the remaining temporary defect information, during a recording operation to manage defects.”

Thus, claim 22 now clearly recites functional descriptive material recorded on a computer-readable medium. Specifically, claim 22 recites information related to defects which is recorded on a computer-readable medium and is used during a recording operation to manage the defects. “When functional descriptive material is recorded on some computer-readable medium, it becomes structurally and functionally interrelated to the medium and will be statutory in most cases since use of the technology permits the function of the descriptive material to be realized.” MPEP 2106.01. In this case, using a recording apparatus with the invention claimed in claim 22 permits the function of the descriptive material, i.e., the management of defects, to be realized.

Additionally, at page 4 of the Office Action, the Examiner argued that “claim 22 defines a program stored in a carrier wave with descriptive material as defined in the specification on page 19, paragraph [0091].” Accordingly, paragraph [0091] has been amended to state: “Here, the computer readable medium includes but is not limited to storage media such as magnetic storage media (e.g., ROM’s, floppy disks, hard disks, etc.), and optically readable media (e.g., CD-ROMs, DVDs, etc.), ~~and carrier waves (e.g., transmission over the Internet).~~”

Accordingly, it is respectfully submitted that the rejection of claim 22 under 35 U.S.C. §101 should be withdrawn.

REJECTIONS UNDER 35 U.S.C. §102:

Claims 1-22 are rejected under 35 U.S.C. §102(b) as being anticipated by Ito et al. (U.S. Patent 6,160,778). It is noted that the Examiner appears to have accidentally referred to Ito et al. as "Ko et al." on page 5 of the Office Action.

In the §102(b) rejection of claims 1-22, the Examiner relied on the alternative language "(N = 0, 1, 2,...)" in each of the independent claims 1, 4, 8, 11, 15, 18, and 22 to argue that, when N = 0, Ito et al. anticipates each of the claimed inventions. According to the Examiner's argument, when N = 0, "the recording of temporary defect information on the recording medium would not have been performed, or the recording medium would have no temporary defect information recorded."

Claims 1-3

Independent claim 1 has been amended and now recites "separately recording to an optical recording medium: temporary defect information with a size equal to a multiple (N=0,1,2,...) of a predetermined size (K) among entire temporary defect information, and remaining temporary defect information, excluding the temporary defect information with the size equal to K x N, among the entire temporary defect information." Thus, claim 1 no longer recites the alternative language when N = 0.

Ito et al. does not disclose each of the recited features of claim 1. The Examiner cites to Ito et al., FIGs. 2-17; col. 9, lines 24-31; col. 10, lines 6-41; and col. 11, lines 30-36 in rejecting claim 1. Col. 9, lines 24-31 disclose a disk 1. Col. 10, lines 6-41 disclose "a defect management information area 4b" which "stores defect management information 10 for managing defective sectors." The defect management information 10 includes a secondary defect list (SDL) 13 which includes an SDL header 20, SDL entry information 21, and SDL entries. An SDL entry includes a status field 22a, a field 22b for storing information location which indicates the location of the defective sector, and a field 22c for storing information which indicates the location of a replacement sector for the defective sector. The status field 22a is used to indicate whether the defective sector is replaced by a replacement sector. Col. 11, lines 30-36 disclose that "by storing in the defect management information area, status information which indicates whether a defective area (a defective sector or a defective block) is replaced by a replacement area (a replacement sector or a replacement block), it is possible to manage the

status where a defective area has been detected but is not replaced by a replacement area.”

Ito et al. does not disclose each and every one of the recited features of claim 1. Ito et al. does not disclose “temporary defect information with a size equal to a multiple (N= 1, 2, ...) of a predetermined size (K),” as recited by claim 1.” Furthermore, Ito et al. does not mention separately recording temporary defect information with a size equal to a multiple (N= 1, 2, ...) of a predetermined size (K) and remaining temporary defect information, excluding the temporary defect information with the size equal to K x N, among the entire temporary defect information, as recited by claim 1. Instead, as noted above, Ito et al. discloses “status information which indicates whether a defective area (a defective sector or a defective block) is replaced by a replacement area (a replacement sector or a replacement block). Ito et al., col. 11, lines 31-35. This status information disclosed by Ito et al. does not anticipate both the temporary defect information and the remaining temporary defect information recited by claim 1. Accordingly, it is respectfully submitted that the rejection of claim 1 should be withdrawn for at least this reason.

Additionally, claims 2-3 depend on claim 1. Thus, the rejections of claims 2-3 should be withdrawn for at least the same reasons that the rejection of claim 1 should be withdrawn.

Claims 4-7

Independent claim 4 has been amended and now recites “continuously recording temporary defect information with a size equal to a multiple (N=_0, 1, 2, ...) of a predetermined size (K) among entire temporary defect information to at least one portion of an optical recording medium.” Thus, claim 4 no longer recites the alternative language when N = 0. Accordingly, it is respectfully submitted that the rejection of claim 4 should be withdrawn for at least the same reasons that the rejection of claim 1 should be withdrawn.

Additionally, claims 5-7 depend on claim 4. Thus, the rejections of claims 5-7 should be withdrawn for at least the same reasons that the rejection of claim 4 should be withdrawn.

Claims 8-10

Independent claim 8 has been amended and now recites “a controller controlling separately recording temporary defect information with a size equal to a multiple (N=_0,1,2, ...) of a predetermined size (K) among entire temporary defect information.” Thus, claim 8 no longer recites the alternative language when N = 0. Accordingly, it is respectfully submitted that the rejection of claim 8 should be withdrawn for at least the same reasons that the rejection of claim

1 should be withdrawn.

Additionally, claims 9-10 depend on claim 8. Thus, the rejections of claims 9-10 should be withdrawn for at least the same reasons that the rejection of claim 8 should be withdrawn.

Claims 11-14

Independent claim 11 has been amended and now recites "a first controller which controls continuously recording temporary defect information with a size equal to a multiple ($N = 0, 1, 2, \dots$) of a predetermined size (K) among entire temporary defect information to at least one portion of an optical recording medium." Thus, claim 11 no longer recites the alternative language when $N = 0$. Accordingly, it is respectfully submitted that the rejection of claim 11 should be withdrawn for at least the same reasons that the rejection of claim 1 should be withdrawn.

Additionally, claims 12-14 depend on claim 11. Thus, the rejections of claims 12-14 should be withdrawn for at least the same reasons that the rejection of claim 11 should be withdrawn.

Claims 15-17

Independent claim 15 has been amended and now recites "a first area, in which temporary defect information with a size equal to a multiple ($N = 0, 1, 2, \dots$) of a predetermined size K among entire temporary defect information is recorded." Thus, claim 15 no longer recites the alternative language when $N = 0$. Accordingly, it is respectfully submitted that the rejection of claim 15 should be withdrawn for at least the same reasons that the rejection of claim 1 should be withdrawn.

Additionally, claims 16-17 depend on claim 15. Thus, the rejections of claims 16-17 should be withdrawn for at least the same reasons that the rejection of claim 15 should be withdrawn.

Claims 18-21

Claim 18 has been amended and now recites "a first area, in which temporary defect information with a size equal to a multiple ($N = 0, 1, 2, \dots$) of a predetermined size K among entire temporary defect information is continuously recorded." Thus, claim 18 no longer recites the alternative language when $N = 0$. Accordingly, it is respectfully submitted that the rejection of

claim 18 should be withdrawn for at least the same reasons that the rejection of claim 1 should be withdrawn.

Additionally, claims 19-21 depend on claim 18. Thus, the rejections of claims 19-21 should be withdrawn for at least the same reasons that the rejection of claim 18 should be withdrawn.

Claim 22

Claim 22 has been amended and now recites "separately storing temporary defect information with a size equal to a multiple ($N = 0, 1, 2, \dots$) of a predetermined size (K) among entire temporary defect information." Thus, claim 22 no longer recites the alternative language when $N = 0$. Accordingly, it is respectfully submitted that the rejection of claim 22 should be withdrawn for at least the same reasons that the rejection of claim 1 should be withdrawn

CONCLUSION:

There being no further outstanding objections or rejections, it is submitted that the application is in condition for allowance. An early action to that effect is courteously solicited.

Finally, if there are any formal matters remaining after this response, the Examiner is requested to telephone the undersigned to attend to these matters.

If there are any additional fees associated with filing of this Amendment, please charge the same to our Deposit Account No. 503333.

Respectfully submitted,

STEIN, MCEWEN & BUI, LLP

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By: 

Hung H. Bui
Registration No. 40,415

1400 Eye St., NW
Suite 300
Washington, D.C. 20005
Telephone: (202) 216-9505
Facsimile: (202) 216-9510